Improving the quality of a satisficing approach to learning (making a good enough approach better)

Practitioner Research
in Higher Education

Vol1 (1): page 37-41

David Lee
University of Cumbria
david.lee@cumbria.ac.uk

Abstract

The word satisficing relates to finding a satisfactory rather than optimal solution to a problem situation. In an educational context, the adoption of a 'pass will do' or satisficing approach to learning has always been a behavioural factor for some students. This might be attributed to things like lack of motivation, personal aspiration levels or the pressures that come to bear on available study time. This paper posits that satisficing at some level is a reality for all learners and that a main challenge for teachers should be to focus on finding ways to improve the quality of that satisficing behaviour.

Introduction

For many the term satisficing will perhaps be a strange word. First coined by Herbert A Simon (1947), it is a merging of the words satisfy and suffice which Simon felt best described a key aspect of his research findings. As a Nobel Prize winning Economist, Simon challenged the standard notion of maximisation in economic models, essentially arguing that this (maximisation) was an impossible goal given that markets would never be perfect, information never complete and decision making never based on a full review of all possible alternatives and outcomes.

In an educational context, learners are faced with a similar 'imperfect' scenario in that for any given assessment (at least ones that are qualitatively-based rather than purely quantitatively-based) it is impossible to acquire perfect information, consider all possible alternative answers or review all available sources. Even the most learned tutors, when designing and planning the content of a module, do so on the basis of their own knowledge limitations and bounded rationality. This is also done within an environment of imposed constraints which include, available time and resources, teaching frameworks (e.g. credit systems, national educational standards), technological limitations and of course skills limitations.

The focus of this paper is on the learners and the issues faced by them in adapting to a learning environment that likes to think in terms of maximisation but in reality, can do no more than support a satisficing outcome.

Satisficing behaviour—some possible causes

Anecdotal evidence is often exchanged between tutors with regard to the motivation of their students to learn but as will be shown in this paper, there is empirical research that has taken place which suggests that many students have a propensity to adopt a 'pass will do' approach to their learning (satisficing approach). This is a complex issue however, impacted upon by many forces that will vary themselves between individual students.

Technology use, (typically internet search engines) both helps and hinders in this regard. Whilst it is an extremely useful tool for research and analysis purposes, it also provides access to an overwhelming amount of data and information. So much so that students will often rely on initial responses to search enquires rather than develop a thorough and comprehensive search (Brophy P. et al, 2004).

Access to vast amounts of information via technology can, as Bell (2004) points out, lead to what he terms 'infobesity' i.e. the consumption of 'fast' information in the same way that fast food is consumed, with no real concern for quality. Furthermore, search engines such as Google provide the student with a simple yet increasingly useful tool for gathering information (Brophy and Bawden 2005). Whether or not it is the right information and of the right quality, is still a matter of debate.

Goodwin and Wright (2004) in discussing the actions of decision makers, posit that it is the aspiration level of the decision maker that often determines the level of satisficing behaviour. Whilst Goodwin and Wright were writing in a managerial context, students are themselves decision makers, certainly in terms of how and what they decide to study. It follows therefore that their own aspiration levels are likely to impact on the level of satisficing behaviour taking place. Factors influencing decisions such as how much time students spend on any given module or assessment topic is also subject to great pressures and influences.

According to Hidi and Harackiewicz (2000), effort and ability are two areas that can be investigated when explaining unsatisfactory academic performance. However, they are complex areas to deal with as they are inextricably intertwined, one clearly contributing to the other. Time availability will have a great impact as it influences both effort and ability and whilst technology is often seen as a time saver, as Thorp (2000) points out when referring to tutors themselves as learners, 'we may be open to the use of different media ourselves, but so time short that we can only take a 'satisficing' approach to learning. We have no time to do more than skim and sketch in the meanings of what we are learning and cannot give time to explore resources...'

This can clearly link to students but as Slocock (2003) asserts, technology itself does not necessarily promote motivation and engagement and is just as subject and sometimes more vulnerable, to student satisficing because of multiple demands on the student's time.

Successive studies have evidenced the satisficing influence that time pressures play in student learning behaviour. Curtis and Williams (2002) found that students admitted that part-time work commitments had a negative influence on their study time. Greenbank (2003) also found that basic instrumentality in relation to career and job prospects also appeared to combine with the aspiration levels of students and satisficing behaviour.

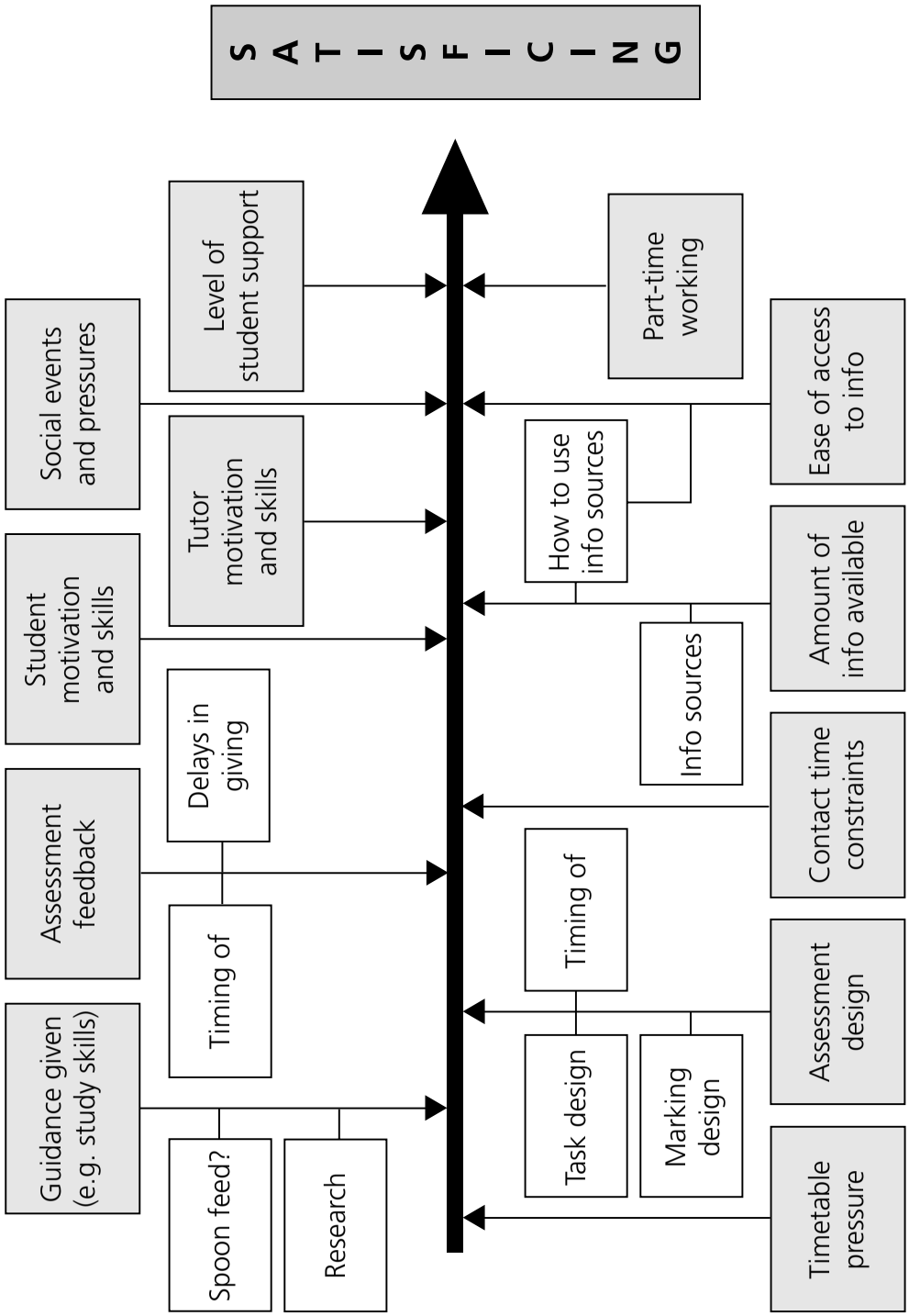
Even the provision of specific learning resources can be problematic as far as satisficing behaviour in students is concerned. Whilst there is continued and growing interest in the development of learning support materials, Wall and Ottewill (2000) found that a satisficing approach was often adopted by students who simply worked through the materials in order to meet minimum course requirements. Here we seem to have a dichotomy between the provision of appropriate resources and guidance and satisficed outcomes. Could the cause of satisficing behaviour in this case be in the design of the materials or the guidance given for their use? The designers of such learning support materials would surely not have intended these outcomes.

Whilst available time, technology and support are clearly contributory factors in establishing a propensity for satisficing behaviour, other areas can also be identified as possible if not probable contributors. Using simple cause and effect analysis, Figure 1 sets out some key areas that the author posits are contributory to the development of satisficing behaviour. It is not intended here to prove these as contributory but suggest that they are a useful starting point for further research in establishing a foundation for the background to this paper i.e. improving the quality of satisficing behaviour.

Satisficing behaviour can occur for a whole range of reasons and these will differ from student to student, particularly given that a key contributor is the student's own social environment. This being the case, it is not accepted that concentrating on changing one cause will automatically improve the quality of satisficing behaviour for all. However, this paper posits that if improvements can be made to a range of these causes, then more students will be affected and the cumulative impact will be greater overall.

This paper attempts to set the scene for further research, the nature of which will need to be action-based in order to provide a proven evidential base. That said, it is possible to provide suggestions for lines of enquiry and to lay out some questions for further analysis based on the issues identified in Figure 1.

Figure 1 Some possible causes of satisficing behaviour



For example, if part-time working impacts on study time, is it possible for assessment design to incorporate it in some way, thus utilising the part-time work as a resource?

With regard to technology, a common reason students choose to use search engines such as Google is because they are quick, easy and (in the student's eyes) efficient. Often dismissed as not having academic credibility, that credibility is growing and whilst Google may never be as good as an academically designed resource, if that resource is difficult and slow to access, then it is less likely to be meaningfully used by students. In this case, either the access to information needs to be improved or there needs to be clearer guidance on what should be used and how to access it.

Markland (2005) concludes that there may be mismatch between expectations and service provision, suggesting that users may be reluctant to engage with information services that require a complex set of decisions to be made in order to achieve results. The challenge learning centres face is in providing appropriate training for such complex systems but this may go beyond the current provision made available.

In many cases, the same academic papers can be accessed through Google as through HE library-based search engines. However, the Google access is often much quicker, easier and available from any Internet connected computer (Brophy and Markland 2004). In some institutions, certain library databases can still only be accessed on-site and are password protected. As Dawson (2005) and Markland (2005) point out, as service providers, HE institutions could learn a good deal from commercially-based search engines in terms of ease of use and access to relevant information. Furthermore, how much instruction is given to students to underpin the use of available resources? Is a typical thirty minute library induction good enough? This type of issue links directly with the general level of student support available and whilst many readers will no doubt be able to testify that students in their institutions receive appropriate support inputs, are they really adequate and fit for purpose?

Assessment design and feedback are crucial aspects in terms of academic outcomes. A poorly designed assessment will regularly lead to poor outcomes and, as readers will no doubt be able to testify, the quality of assessment feedback is often variable not just in terms of quality but also in terms of its utility to students. Timely and formative feedback, contribute heavily to the level of utility achieved yet many examples exist where neither of these are provided, at least not consistently. And then of course there is the vexed issue of student motivation.

There is not sufficient wordage permitted in this paper to plough in any depth into this vast and highly debated topic. However a common thread that comes out of many papers relates to how students perceive themselves when on a course of study. Competence and mastery (control and self-determination) of any given subject and the relationship between the tutor and the student are seen as keys to enabling student motivation (Seifert 2004).

In linking to the incidence of satisficing behaviour, Howarth (2001) cites some interesting findings with regard to module choices that have implications for motivation also. The findings showed that those students who selected modules out of interest enjoyed the module more and spent more time studying, when compared to students who had modules forced upon them either as cores or because of limited module choice. Whilst these findings could arguably have been predicted, they do have potential implications for course design and organisation.

Conclusions

If one accepts Herbert Simon's assertion that maximisation is unachievable and that some level of satisficing is the actual reality, then the object of this paper becomes more clear. In an educational context, the notion is not to assume an outcome of maximisation, (not least because it has never been clearly defined anyway) but to seek to improve the quality level of any outcome resulting from student's satisficing behaviour. The variability of this behaviour suggests that there will not be one action that will achieve this but a range of possible actions that in time, will positively impact on the causes of satisficing behaviour and thus raise the outcome level.

We must accept that satisficing behaviour is a function of how we operate as tutors so how or indeed why, should we expect any form of maximisation from our students? Yes, we should rightly expect of them to try as hard as possible but in reality what does that mean when one superimposes the range of choices, constraints and limitations on any given situation? As Pearson (2002) points out, the conflicting demands placed on students often means that the assessment work handed in is 'the best they can produce in the circumstances'. It follows therefore that if, as tutors we can improve those circumstances in some way, there should be a resultant improvement in the quality of outcomes that will shift the distribution curve rather than skew it.

References

Bell, S. (2004). *"The infodiet—how libraries can offer an appetizing alternative to Google"*, The chronicle of higher education. 50 (24). pB15.

Brophy, P. (2004). *Evaluating the joint information systems committee's information environment—the EDNER and EDNER+ projects*—The journal of information and knowledge management systems. 34 (4). 143-147.

Brophy, J. Bawden, D. (2005). *Is Google enough? Comparison of an internet search engine with academic library resources*. New Information Perspectives. 57 (6). 498-512.

Brophy, P. and Markland, M. (2004) EDNER+ Information environment formative evaluation—Quality study 1. Comparison of the RDN Hubs and Google as search tools. Deliverable Q1—Manchester, CERLIM (Centre for Research in Library and Information Management).

Brophy P., Markland M., Griffiths J. R. and Booth, H. (2004). *EDNER+ Formative evaluation of the information environment—Evaluation of IE presentation services* (Deliverable 4, EDNER+ Project). Manchester, CERLIM (The Centre for Research in Library and Information Management).

Curtis, S. and Williams, J. (2002). *"The reluctant workforce—Undergraduates' part-time employment"*. Education and training. 44 (1). 5-10.

Dawson, A. (2005). *Optimising publications for Google users*. Internet Reference Services Quarterly 2005. 10 (3/4).177-194.

Greenbank, P. (2003). *Collaboration in the assessment process—an initial evaluation of collaboration on an undergraduate business and management course*. Teaching in higher education. 8 (3). 317-331.

Goodwin, P. and Wright, G. (2004). *Decision analysis for management judgment*. Third edition. Chichester—Wiley.

Howorth, C. (2001). *An empirical examination of undergraduate students' module choices*. The international journal of management education. 2 (1).

Hidi, S. and Harackiewicz, J.M. (2000). *Motivating the academically unmotivated—a critical issue for the 21st century*. Review of educational research. 70 (2). Summer. 151-179.

Markland, M. (2005). *Does the student's love of the search engine mean that high quality online academic resources are being missed?* The international journal for library and information services. 6 (1). 19-31.

Pearson, D. (2002). *Customers from practice—Provision for continuing professional development students*. Teaching forum 50. Autumn 2002.

Seifert, T. L. (2004). *Understanding student motivation*. Educational research. 46 (2).

Simon, H.A., (1947). *Administrative behaviour—A study of decision-making processes in administrative organization*. Macmillan—New York. 4th edition, 1997, The Free Press.

Slocock, B. (2003). *The role of a VLE in the teaching of political concepts and reasoning*. C-SAP Project 2002-03 findings—University of Paisley. (HE academy at http://www.c-sap.bham.ac.uk/resources/project_reports/findings/ShowFinding.asp?id=117).

Thorpe, M. (2000). *New technology and lifelong learning*. Working papers of the global colloquium on supporting lifelong learning. Milton Keynes—Open University. http://www.open.ac/lifelong-learning.

Wall, A. Ottewill, R. (2000). *Delivering contextual material on a vocational business and public sector programme.* Education and training. 42 (3). 150-159.